

DOCUMENT RESUME

ED 065 472

SP 005 786

AUTHOR Dill, Nancy L.
TITLE An Inquiry Into Curriculum Theories and Open Classroom Practices.
PUB DATE Apr 72
NOTE 19p.; Paper presented at the Annual Meeting of the American Educational Research Assn., Chicago, April 1972
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS *Education; *Educational Innovation; *Educational Programs; *Open Education; *Progressive Education
IDENTIFIERS New York

ABSTRACT

The main objective of this research was to look at open classroom practices in an analytical way. Network analysis was used to collect and organize data about individual classrooms. The open classrooms observed were located in public schools in the New York area and ranged from grades K to 6. The open classrooms observed by the investigator were ones in which 1) the research had student teachers and was there as a supervisor; 2) the researcher had undergraduate students from an elective course, "Analyzing Teaching Behavior"; and 3) the researcher had graduate students from a research course who were the regular, full-time classroom teachers. Six major findings are presented. Enough open classrooms do not exist in this country to allow for adequate sampling procedures; thus, the findings are considered tentative. A 24-item bibliography is included. (MJM)

ED 065472

N-NPD

SP

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIG-
INATING IT. POINTS OF VIEW OR OPIN-
IONS STATED DO NOT NECESSARILY
REPRESENT OFFICIAL OFFICE OF EDU-
CATION POSITION OR POLICY.

AN INQUIRY INTO CURRICULUM THEORIES
AND OPEN CLASSROOM PRACTICES*

Nancy L. Dill

Queens College

of The City University of New York

Paper presented at the annual meeting
of the American Educational Research Association,
Chicago, April 6, 1972

FILMED FROM BEST AVAILABLE COPY

SP 005786

AN INQUIRY INTO CURRICULUM THEORIES
AND OPEN CLASSROOM PRACTICES

Nancy L. Dill

Queens College

of The City University of New York

Abstract

Conventional curriculum theories, refined and made more complex over the years, are for the most part based on classrooms where teachers stand at the front of the room and confront all the youngsters with the same curricular unit at the same time. These theoretical constructs are inadequate when the framework of instruction becomes an open classroom. This paper is based on observations of open classrooms at the elementary level in the New York City area, using a modified form of network analysis to record data about curricular components focused upon in various activities and events.

AN INQUIRY INTO CURRICULUM THEORIES
AND OPEN CLASSROOM PRACTICES

Nancy L. Dill

Queens College
of The City University of New York

Introduction

The open classroom, for youngsters, alters both the substance and structure of learning. And in many ways the medium is the most important message being communicated.

The open classroom, for teachers, alters both the categories and cycles of teaching behavior.

No longer can one assess the curriculum materials with which a classroom is stocked and know with assurance what it is that, over time, is engaging the students' attention.

No longer can one enter a classroom, do a Flanders' Interaction Analysis, "read the face of the matrix" with the data thus collected, and know the nature of the interaction between students and teacher

No longer can one scan teachers' lesson plans, even if they are stated in behavioral terms, and know the kind of engagement the youngsters in the classroom are experiencing.

Objectives of the Inquiry

This research has had as its main objective to begin looking at open classroom practices in an analytical way.

Questions to be Explored

1. What does a close examination of what happens in an open classroom tell us about curriculum theory, curriculum planning and design, curriculum research and development, curriculum evaluation?

2. What does an investigation of interaction in an open classroom tell us about teaching behavior?

Only the first question is being reported on in this paper. The second question is under continuing investigation.

Review of Literature on Curriculum Theory and Development

Conventional curriculum theories, refined and made more complex over the years, have centered on three key notions:

formulating objectives

selecting learning experiences

establishing sequence (Taba; Tyler, 1950)

This is not surprising since many early definitions of the term "curriculum" embodied these three components. For example:

a sequence of potential experiences set up
in school for the purpose of . . .
(Smith, Stanley, and Shores, p. 3).

The Bruner book, which set the stage for much of the curriculum development of the Sixties, however, established the overall design component of structure as the essence of the development process (Bruner, 1960).

Some curriculum theorists did not see this as antithetical to the earlier notions at all. Witness Gagné's definition of curriculum:

a curriculum is a sequence of content units arranged in such a way that the learning of each unit may be accomplished as a single act, provided the capabilities described by specified prior units (in the sequence) have already been mastered by the learner (Gagné, 1967, p. 23).

Implied in Gagné's task analysis (Gagné, 1967, pp. 24-25) is the notion that a curriculum is a series of behavioral objectives arranged sequentially.

Utilizing Gagné's and Mager's work on behavioral objectives (Gagné, 1967; Mager, 1962), Banathy and others have taken on the task of designing total instructional systems (Banathy, 1968). What seems to be forgotten in much of this work, however, is that open systems are dominated by what is called the principle of equifinality--i.e. the use of different patterns or routes to produce the same final result. In contrast to equilibrium states in closed systems which are determined by initial conditions, the state of an open system is determined only by system parameters (von Bertalanffy, 1962, p. 7). This is to say that the same final state can be

reached with different starting conditions and proceeding on different courses of action.

The big question is to what extent do these notions explain what happens in an open classroom.

Review of Literature on Open Classrooms

Joseph Featherstone called American attention to the British Primary School Movement in 1967 (Featherstone, 1967). More recently, Charles Silberman's Crisis in the Classroom has become the required reading on open classrooms (Silberman, 1970).

It is the 1200 page Plowden Report (primarily survey research data with interpretations and recommendations) and Lillian Weber's The English Infant School and Informal Education, however, that constitute the bulk of the heavy writing on the open classroom. Weber's recent book traces the social and historical background of the Movement, thus complementing the Plowden Report's "state of the schools" emphasis. (Plowden, 1967; Weber, 1971).

Open classroom education grows out of the philosophy that for each child learning takes an uneven, episodic path (Kohl, 1969, p. 54) and that children can take responsibility for their own learning if allowed to do so (Muir, 1970).

The role of the teacher is to provide an environment in which this process can take place (Stevens, 1970, p. 64). Such an environment is described in the following passage:

Walking up a half dozen steps, we come upon a first floor corridor that is the connecting passage between four primary classrooms that open off it. At 10 A.M. in the corridor, four kindergarten girls, seated cross-legged on some cushions with a pile of magazines, a paste pot and a very large sheet of brown paper, are cutting and pasting. Nearby, a third grader is reading a story to a younger child; both are giggling at the antics of "Curious George." Two girls sitting side by side on the corridor floor are each absorbed in a book, as is a boy leaning against the opposite wall. Several youngsters are writing in notebooks or on loose sheets of paper. A large, bright yellow wooden tub on wheels, with two children and an oversized stuffed dog crowded into it, is being pushed along the corridor by a highly energetic boy.

The children who are working do not look up as the cart rolls by. No adult is present in the corridor aside from the visitors. From time to time a child gets up and goes into one of the classrooms to ask some available adult a question (Schneir and Schneir, 1971, p. 31).

The problem of relating structured curricula to open classrooms is one that must be considered, however.

Definitions

Open classroom.--For the purposes of this study, the minimum criteria for an open classroom were established as consisting of the following:

1. There is no "up front" (Stevens, 1970, p. 64).
2. The teacher seldom talks to the class as a whole, although she talks with individual children often (Stevens, 1970, p. 64).
3. Each child works with a wide variety of materials

and books (stevens, 1970, p. 64).

4. Children are free to speak and move around as they wish (Kohl, 1969, p. 30).

5. An individual child can decide for himself what he wants to work on (Ford, 1971, p. 10).

6. A child can work on a task as long as he wishes to do so (Ford, 1971, p. 11).

Procedures

This research makes use of network analysis as a way of handling information about open classrooms. The investigator had previously used network analysis to handle ongoing events and activities in large change situations (Dill, 1969; Dill, 1970). This was the first time, to the researcher's knowledge, that the procedure has been used as a way of collecting and organizing data about individual classrooms for analysis.

Network analysis.--Network analysis is a technique used in systems design, planning, and control to show the sequential relationship among activities and events (Johnson, Kast, and Rosenzweig, 1967, p. 316). The analysis is presented in the form of a network which is a visual representation of the system (Everts, 1964, p. 17).

Network.--a flow chart made up of events that are joined by activity lines to depict their interdependencies and interrelationships (Baker and Eris, 1964, p. 2).

Events.--Events are instantaneous occurrences; they do not consume time or resources (PERT Coordinating Group, 1963, p. 18). An event is usually shown on the network as a circle. Events are used at the beginning and end of all activities, and they are usually identified by a number as well as explanatory nomenclature.

Activities.--There are two types of activities--real and dummy. Real activities are time-consuming tasks, shown on the network as a solid line with an arrow to indicate the direction of sequential activities (Evarts, 1964, p. 94). Dummy activities do not consume time or other resources; however, they are constraints which represent the dependency of one event upon another (Baker and Eris, 1964, p. 5). A dummy activity is shown on the network as a dashed arrow.

Event and activity numbering.--Events are numbered sequentially in a network, usually from left to right and top to bottom. A skip-numbering system is usually utilized in order to permit the addition of events without getting numbers out of sequence.

Critical path.--The critical path is the sequence or chain of events and activities, extending from the beginning of a network to the end of a network, requiring the longest time to complete (PERT Coordinating Group, 1963, p. D.1). In this study the critical path is utilized to follow the movements of one youngster over a period of time.

Other network procedures.--1. One event often serves as

both the ending event for one group of activities and the beginning event for another series. 2. Event bubbles are sometimes drawn in different shapes to make possible rapid identification of activity and event responsibilities. 3. Network condensation is a procedure which allows a large network to be reduced to a skeleton network. 4. Network expansion is the reverse process in which more detailed networks are prepared.

Figures 1 - 3 illustrate the above discussion.

Observations

The open classrooms observed by the investigator were ones in which (a) the researcher had student teachers and was there as a supervisor, (b) the researcher had undergraduate students from an elective course on "Analyzing Teaching Behavior" (who were also student teaching but the researcher was not the supervisor), and (c) the researcher had graduate students from a research course who were the regular, full-time classroom teachers.

The open classrooms observed were located in public schools both in Queens and on Long Island and ranged from K to 6 in grade level. Included among the classrooms observed was a 5 - 6 and a 4 - 5 - 6 combination open classroom operation.

Some observations were video-taped for later analysis.

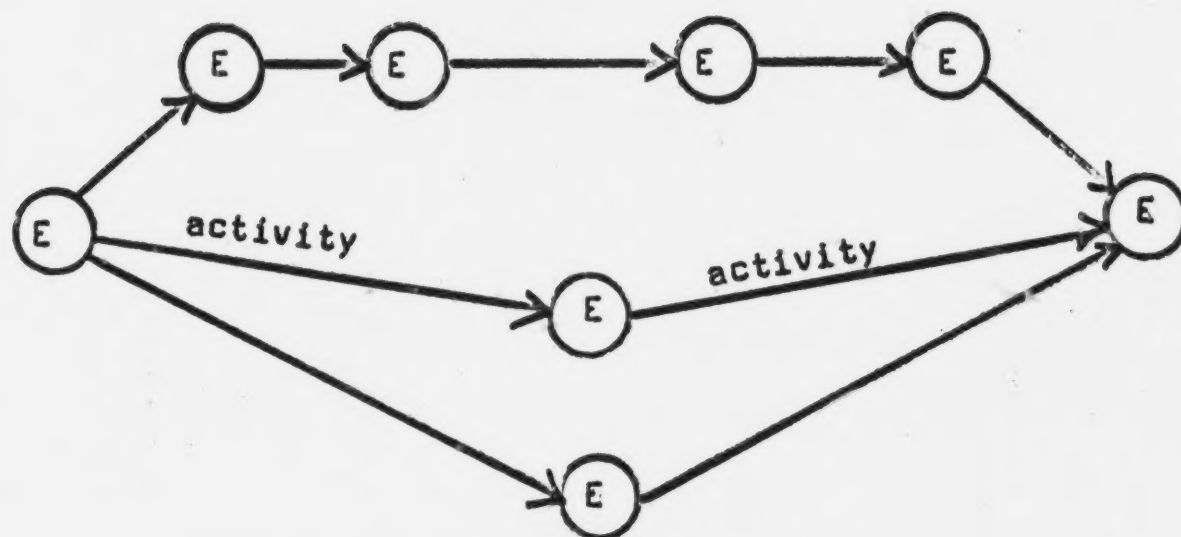


Figure 1. Network Showing Activities and Events

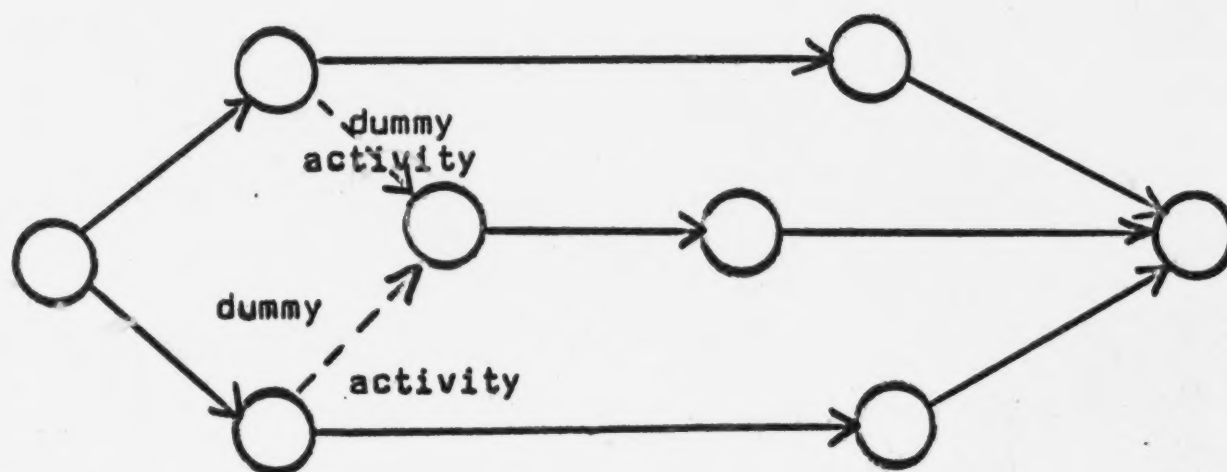


Figure 2. Network Showing Activities, Events, and Dummy Activities

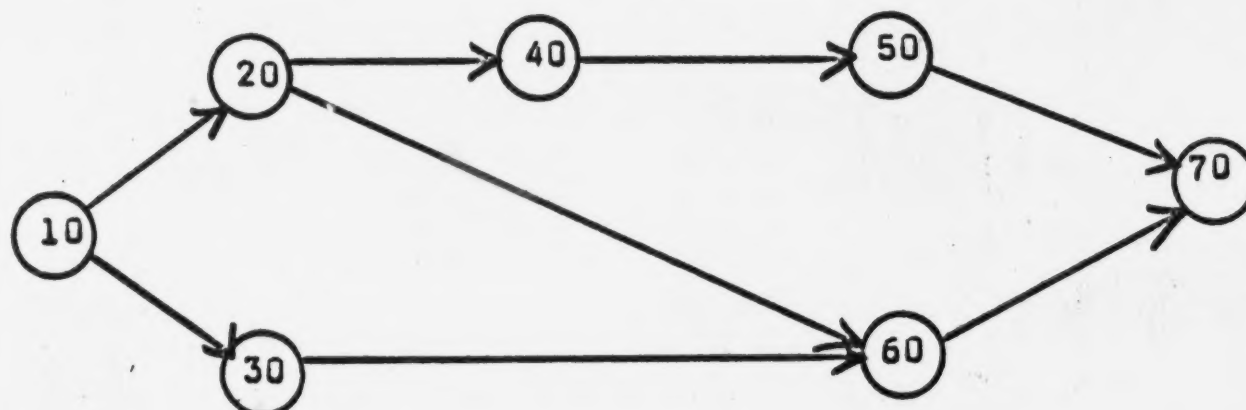


Figure 3. Network Showing Event Numbering System

The Networks

In some cases a skeleton network was constructed during the observation. This network was expanded following the observation, using as much detail as the observation had produced. When the observation was videotaped, all network construction was delayed until later viewing of the tape.

The following coding schedules were utilized:

Events:

22	youngster # 22
5	youngster # 5
9	youngster # 9
T	Classroom teacher
T ₁	Classroom teacher - used when more than one
T ₂	" " " " "
T ₃	" " " " "
ST	Student teacher
ST ₁	Student teacher - used when more than one
ST ₂	" " " " "
ST ₃	" " " " "

p Parent

s Supervisor

A Administrator

c child from another classroom

t_1 time at beginning event

t_2 time at ending event

$t_{act} = t_1 - t_2$ length of activity

Activities

SS Social Studies

MA Math

SC Science

LA Language Arts

R Reading

MU Music

ART Art

PE Physical Education

Activities were subsequently color-coded

If a particular curricular program was identifiable as an entity it was given a number which was used along with the general area designation listed above.

Critical Paths

The movement of individual youngsters over time was followed by color coding the events and activities in which they had been involved.

Findings

1. Youngsters, newly acclimated to the changed "rules of the game" frequently exercise their options and avoid certain projects, tasks, curricular areas. They are very often even successful in resisting the prodding of a teacher. If a student rejects an activity either on the basis of its content area or on the basis of the instructional method, he has in effect rejected the goal or objective which that program was designed to relate to. These observations suggest that the setting of goals can no longer be considered as the SUPER STARTING POINT for curriculum development.

2. Behavioral change in an open classroom becomes a function of both time and intensity of engagement.

$$bc = f(t)(i)$$

An art activity, for example, which can frequently fill up

30 minutes in a traditional classroom was frequently executed by youngsters on their own in an open classroom in less than 3 minutes. These observations suggest that intensity of engagement may be a much more crucial factor than the SUPER STRUCTURE of blocks of knowledge.

3. Sequence is a highly individualistic thing. Some youngsters choose to repeat items, getting pleasure out of the familiarity of the task. Other children prefer to plunge ahead, testing their capacities, retreating to another level if confronted by frustration or the reality of low-score criterion tests. These observations suggest that there is no SUPER SEQUENCE applicable to all.

4. Activities which look on the surface like non-tasks-- e.g. doing the weather report, cleaning the art brushes--often have a deeper structure. They frequently provide the framework within which youngsters have extended talk among themselves, uninterrupted by a teacher's questions.

5. The flow of events is very similar across grade levels. Networks of a third grade look much like kindergarten networks, on the one hand, and bear a great likeness to upper grade networks as well. This appears to indicate a process is in operation that cuts across various ages and grades.

6. The activities of an open classroom frequently spill out of the main classroom space into adjoining halls, with a

nearby set of stairs often providing a mini-stage for impromptu dramatizations. It is not "no walls" in itself that generates a good open classroom but connected bits of space, much like an airport terminal with a central area feeding into numerous corridors and gates, some in use all the time, others in use only at certain times. Many open space buildings contain classrooms which do not meet the minimum criteria established in this study as constituting an open classroom. These observations suggest that there are no SUPER SCHOOL BUILDINGS which will in and of themselves assure educational success.

Summary

Many formulations in the curriculum field must be questioned as a result of looking at curriculum not at an assumed level of a school or a classroom but at the only level at which it bursts into reality--that of the individual student. Gagné's contention that "a curriculum is a sequence of content units arranged in such a way that the learning of each unit may be accomplished as a single act, (provided the capabilities described by specified prior units (in the sequence) have already been mastered by the learner" (Gagné, 1967, p. 23) must be questioned when youngsters are observed taking on curriculum content in varying sequences.

The order of the steps in the process of curriculum development must be questioned when youngsters in open classrooms,

now possessing the powers of self-selection, opt out of activities and experiences, remarking "you're not going to get me involved in that." Perhaps the planning of learning experiences should be the first consideration in a new conceptual framework for curriculum development.

This paper argues for a grounded approach to curriculum theory--one in which the focus is on those points at which students are caught up in learning encounters. Noticing how these encounters cluster together, it might be subsequently possible to derive those objectives which are being met by the school as a last step in the analytical process.

Although the open classroom approach to education has been widely acclaimed in the last two years, there has been little research to date on open classroom practices. Obviously the findings presented in this paper are quite tentative. Enough open classrooms do not yet exist in this country to allow for adequate sampling procedures. It is hoped that this effort is at least in the right direction.

Thinking about curriculum theory, curriculum development and research, curriculum planning and design, and curriculum evaluation seems to be in a state in which the same things are said over and over again. Unlike Schwab's suggestion that curriculum energies be diverted from theoretical pursuits (Schwab, 1970, p. 2), this investigator would contend that the discovery of new and practical theory in the curriculum field is still a real possibility.

BIBLIOGRAPHY

- Baker, Bruce N. and René L. Eris. An Introduction to PERT-CPM. Homewood, Illinois: Richard D. Irwin, Inc., 1964.
- Banathy, Bela H. Instructional Systems. Palo Alto: Fearon Publishers, 1968.
- Bruner, Jerome S. The Process of Education. New York: Random House, 1960.
- Dill, Nancy L. Comparing and Describing the Process of Curriculum Change Through the Application of Network Analysis. Washington, D.C.: U. S. Department of Health, Education, and Welfare, Office of Education. Final Report on Project No. 8-8-024, 1969.
- Dill, Nancy L. "Using Network Analysis to Study the Process of Curriculum Change." A paper presented at the annual meeting of the American Educational Research Association, Minneapolis, March, 1970.
- Evarts, Harry F. Introduction to PERT. Boston: Allyn and Bacon, 1964.
- Featherstone, Joseph. "Schools for Children: What's Happening in British Classrooms," The New Republic, August 19, 1967; "How Children Learn," The New Republic, September 2, 1967; "Teaching Children to Think," The New Republic, September 9, 1967.
- Ford, John. "A Study of the Open Classroom and Students' Attitude Toward School." Unpublished M.S. Research Report, Queens College of The City University of New York, 1971.
- Gagné, Robert M. "Curriculum Research and the Promotion of Learning," Perspectives of Curriculum Evaluation, ed. Ralph Tyler. Chicago: Rand McNally, 1967, pp. 19-38.
- Johnson, Richard A., Fremont E. Kast, and James E. Rosenzweig. The Theory and Management of Systems. New York: McGraw-Hill Book Co., 1967.
- Kohl, Herbert R. The Open Classroom. New York: Random House, 1969.
- Mager, Robert F. Preparing Instructional Objectives. Palo Alto: Fearon Publishers, 1962.

- Muir, Marie. "How Children Take Responsibility for Their Learning," Teaching in the British Primary School, ed. Vincent R. Rogers. New York: The MacMillan Co., 1970, pp. 16-33.
- PERT Coordinating Group. PERT Guide for Management Use. Washington, D.C.: Office of the Secretary of Defense, June, 1963.
- Plowden, Lady J. P., Chairman, Central Advisory Council for Education (England), Children and Their Primary Schools. London: Her Majesty's Stationery Office, 1967. 2 vol.
- Schneir, Walter and Miriam Schneir. "The Joy of Learning--In the Open Corridor," The New York Times Magazine, April 4, 1971, p. 31.
- Schwab, Joseph J. The Practical: A Language for Curriculum. Washington, D.C.: NEA Center for the Study of Instruction, 1970.
- Silberman, Charles E. Crisis in the Classroom. New York: Random House, 1970.
- Smith, B. Othanel, William O. Stanley, and J. Harlan Shores. Fundamentals of Curriculum Development. New York: Harcourt, Brace & World, 1957.
- Stevens, William K. "Parents Unhappy with Public Schools Find Alternative in Informal Classes," The New York Times, June 21, 1970, p. 64.
- Taba, Hilda. Curriculum Development: Theory and Practice. New York: Harcourt, Brace & World, 1962.
- Tyler, Ralph W. Basic Principles of Curriculum and Instruction. Chicago: The University of Chicago Press, 1950.
- von Bertalanffy, Ludwig. "General System Theory--A Critical Review," General Systems. 1962 Yearbook of the Society for General Systems Research. Edited by Ludwig von Bertalanffy and Anatol Rapoport. Pp. 1-20.
- Weber, Lillian. The English Infant School and Informal Education. Englewood Cliffs, N.J.: Prentice-Hall, 1971.